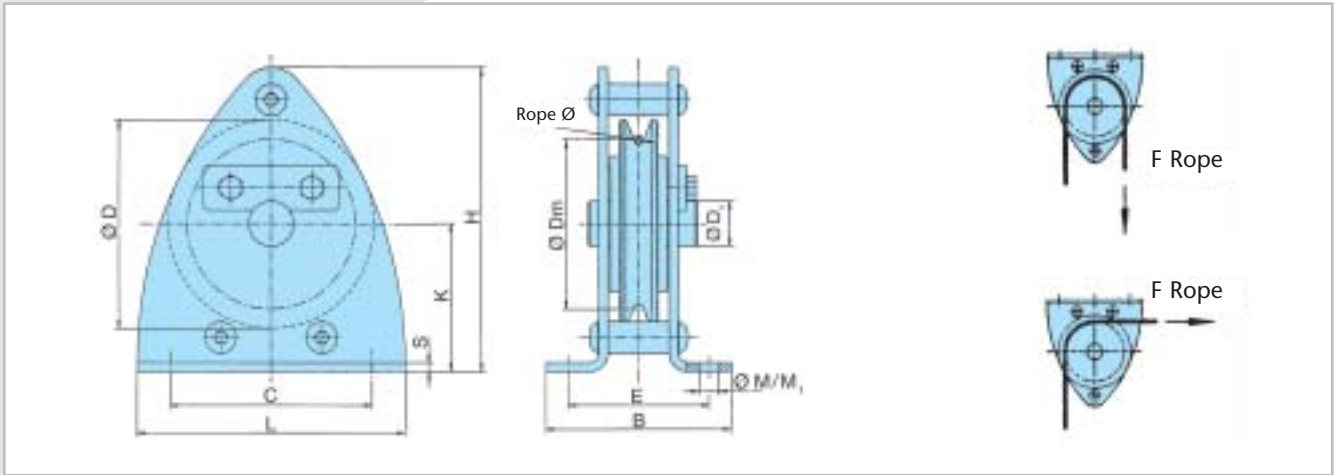


Accessories for Pfaff-silberblau Hand Winches

Sheave Block for Wire Rope Guidance



Art. No.	Type	D Ø mm	Rope Ø mm	Dm Ø	Drive group FEM	Max. tensile load kg at deflection		Ball bearing	D ₁ Ø mm	L Ø mm	C mm	H mm	B mm	E mm	S mm	K mm	M/M ₁ Ø mm
						90°	180°										
033447103	DSRB S 90/4	90	3-4	80	2m	700	500	6004ZZ	20	120	90	134	85	65	4	65	9/9
033447413	DSRB S 90/6	90	5-6	78	1Dm	700	500	6205ZZ	25	120	90	134	85	62	6	65	9/9
033447106	DSRB S 145/7	145	7	126	1Am	1100	800	6306ZZ	25	200	160	224	125	88	6	110	11,5/13
033447107	DSRB S 185/8	185	8	160	2m	2300	1630	6306ZZ	30	245	195	273	138	106	8	135	13,5/15
033447111	DSRB S 270/12	270	9-12	246	2m	2500	1800	6208ZZ	40	360	290	407	191	138	10	202	18/20
033447113	DSRB S 400/16	400	13-16	368	3m	5000	3800	6310ZZ	50	530	430	612	302	212	15	310	26/30
033447115	DSRB S 490/20	490	20	450	3m	8000	6000	6313ZZ	65	650	580	694	313	220	16	340	34/40

All wire cable reels are also available individually on request.

Standard cables for Pfaff-silberblau hand winches

Galvanized 6 x 19 design in accordance with DIN 3060, with fiber inlay at one end with pressed in thimble and ultra-strong safety hook, and point-cut (blunt) at the other. Please refer to the table below for the order number required, taking account of the cable diameter and length.

Rope Ø	Calculated breaking strength	Rope lengths				Lifting capacity of eye hooks
		5 m	10 m	15 m	20 m	
4 mm - DIN 3060	10,1 kN	033600405	033600410	033600415	033600420	500 kg
5 mm - DIN 3060	15,8 kN	033600505	033600510	033600515	033600520	1000 kg
6 mm - DIN 3060	22,8 kN	033600605	033600610	033600615	033600620	1000 kg
7 mm - DIN 3060	31,0 kN	033600705	033600710	033600715	033600720	1000 kg
7 mm - DIN 3069 *	43,9 kN	-	-	033601715	-	1600 kg

*Cable with higher breaking strength for wire rope winch LB 1350 kg

Additional accessories available on request

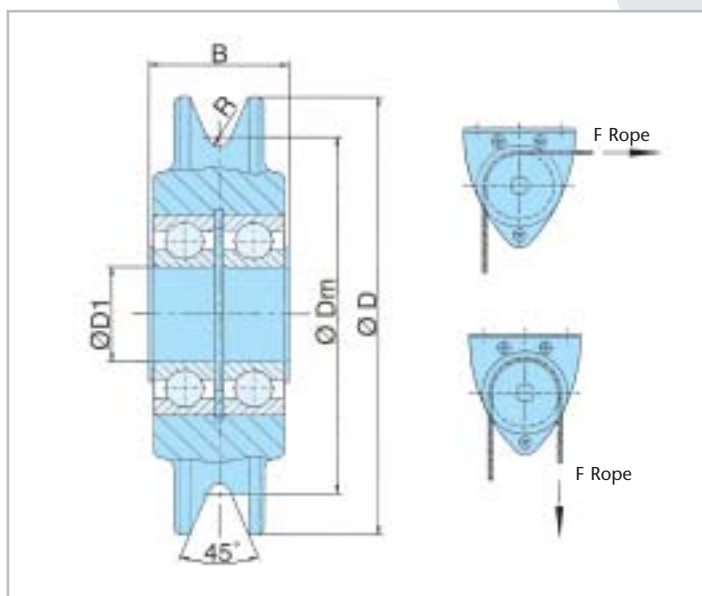
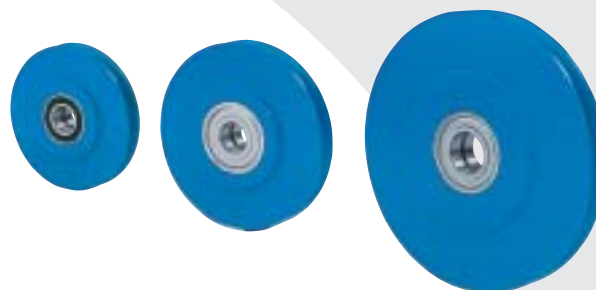
- Cable suspension gear (1 to 4-strand)
- Sling ropes with loops at both ends
- High-strength shackles
- Gibs and cotters, turnbuckles
- Wire cable blocks with hooks and swivel eyes
- Hinged wire cable blocks
- Wire rope sheave block with plastic sheave



Sheaves

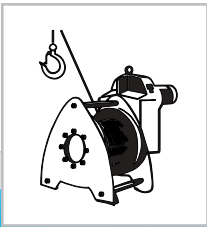
DSR Sheaves

The deviation of wire ropes high safety regulations have to be observed. The sheaves DSR made of steel provides a safe concept: due to a wear-resistant rope guide where the machine groove is perfectly adjusted to the wire rope. 15 different types guarantees a made-to-specification solution at loads of up to 8 tons. The sheaves can be varied in wire and sheave diameter (from 80 up to 490 mm) – and as standard all sheaves are equipped with ball bearings. The sheaves are one of the guiding elements within the comprehensive Pfaff-silberblau product range of wire rope winches, wire rope and wire rope pulley blocks.



6

Art. No.	Type	D mm	Rope Ø mm	Dm mm	Drive group FEM	Tensile load kg at deflection		Ball bearing	D1 Ø mm	R mm	B mm
						90°	180°				
033447202	DSR S 80/4	80	4	66	1Bm	700	500	6004ZZ	20	2,2	28
033447403	DSR S 90/6	90	6	80	1Dm	700	500	6004ZZ	20	3,2	28
033447204	DSR S 145/5	145	5	125	4m	1100	800	6205ZZ	25	2,7	34
033447205	DSR S 145/6	145	6	125	2m	1100	800	6205ZZ	25	3,2	34
033447206	DSR S 145/7	145	7	126	1Am	1100	800	6205ZZ	25	3,7	34
033447207	DSR S 185/8	185	8	160	2m	2300	1630	6306ZZ	30	4,2	42
033447208	DSR S 185/9	185	9	162	1Am	2300	1630	6306ZZ	30	4,8	42
033447209	DSR S 270/10	270	10	245	3m	2500	1800	6208ZZ	40	5,3	41
033447210	DSR S 270/11	270	11	248	3m	2500	1800	6208ZZ	40	6,0	41
033447211	DSR S 270/12	270	12	246	2m	2500	1800	6208ZZ	40	6,5	41
033447212	DSR S 270/13	270	13	244	1Am	2500	1800	6208ZZ	40	7,0	41
033447217	DSR S 325/14	325	14	297	2m	4500	3200	6310ZZ	50	7,5	60
033447213	DSR S 400/16	400	16	368	3m	5000	3800	6310ZZ	50	8,6	61
033447214	DSR S 400/18	400	18	364	2m	5000	3800	6310ZZ	50	9,7	61
033447215	DSR S 490/20	490	20	450	3m	8000	6000	6313ZZ	65	10,8	72









Steel Wire Rope

All Pfaff-silberblau electrical rope winches are supplied without load bearing mechanisms as standard. By selecting the optimum rope design and length and associated fastening elements (hooks, shackles) you can be sure that your rope winch will give you reliable service.

It is sensible to select the wire ropes on the basis of design, type of construction and strength to suit the intended use and frequency of use. The properties of the different types of rope design are as follows:

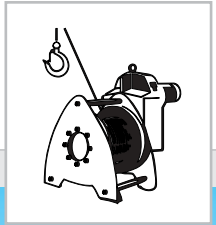
Breaking strength	→	Load bearing capacity, strength of the rope
Bending fatigue + flexibility	→	Service life
External wear	→	Stability of the outer strands
Torsion characteristics	→	Lifting of guided or unguided loads
Handling		

Our range of products includes rope winches for lifting, pulling and moving loads. For use with our winches we recommend the following types of rope:

 	<p>Standard design DIN 3060 - 6 x 19 + FE 1770 N/mm²</p> <p>Hand-operated winch rope with fiber inlay 3- 12 mm Ø</p> <ul style="list-style-type: none"> Galvanized Stainless steel in mat. 1.4401 Nominal strength 1570 N/mm² (low breaking strength) 	<ul style="list-style-type: none"> Not non-twisting Crosslay type of construction Galvanized or stainless steel Low-tension Lifting rope for infrequent actuation Rugged and widely resistant
 	<p>Warrington-Seale - 6 x 36 WS+SES (FE) 1770 N/mm²</p> <p>Hand-operated and electric winches in parallel type of construction, 10 - 28 mm Ø</p> <ul style="list-style-type: none"> Galvanized With fiber or steel inlays as options 	<ul style="list-style-type: none"> Highly flexible High breaking strength Average number of reversed bending stresses
	<p>Non-rotating special wire rope SE-znk - 1960 N/mm²</p> <p>Non-rotating spiral strand rope, 3 - 13 mm Ø</p> <ul style="list-style-type: none"> Standard rope for electric rope winches Galvanized 	<ul style="list-style-type: none"> Balanced characteristics Lifting rope for unguided single rope suspension elements Lifting rope for large lifting heights with multiple rope suspension elements Not to be used with a swivel High strength High bending fatigue characteristics
	<p>Heavy duty winch rope</p> <p>Electric winch rope with plastic-coated steel core in double-parallel type of construction, 6 - 30 mm Ø</p> <ul style="list-style-type: none"> Bright and greased Not non-twisting 	<ul style="list-style-type: none"> Special rope for frequent bending stress reversals and long use To be used only with matching rope sheaves and drums Optimized break loads thanks to higher fill factor

The use of plastic-coated steel wire ropes with lifting equipment is not permitted.

We shall be pleased to advise you on the length, diameter and type of rope and on suitable fastening equipment (thimbles, hooks, rope clips, etc.) for your particular requirements. Please also ask us to provide you with an offer.



Rope fasteners / Rope connections

The safe functioning of the rope drive depends to a large extent on the rope fastenings on the winch and on the load. The rope connections and the ropes themselves have to be checked at regular intervals by a suitably qualified expert. The following rope connections are permissible for use with lifting equipment:

Non-releasable rope connections:

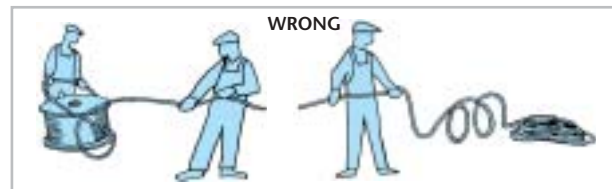
	<p>Aluminium press-on connection with thimbles in combination with safety eye hooks or screw shackles provide a simple and safe means of suspending loads.</p>
	<p>Splice connections DIN 3089 (uncoated) in combination with thimbles, hooks, etc. In the most unfavourable situation, splice connections can lead to a reduction in the breaking load of the rope line of up to 40%.</p>

Pressed and splice connections may only be produced by specialist firms or rope manufacturers.

Releasable rope connections:

	<p>Rope clips</p> <ul style="list-style-type: none"> • The end which is not under load must never be fastened to the load-bearing line. • The length of the rope end which is not under load should be at least 20 times the diameter of the rope and not less than 150 mm. • Clips may no longer be used once the rope has worn by more than 10%.
	<p>• Wire rope clamps in accordance with DIN 1142 may not be used for rope connections for lifting equipment, with the exception of fastening equipment which is manufactured for one-off special purposes!</p>

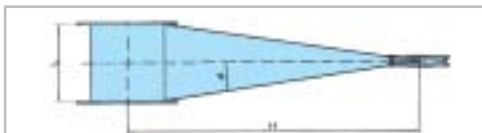
Handling of ropes – Unwinding



Care of ropes

"Running ropes" in particular will only offer optimum service lives if they are well lubricated. The use of steel ropes without grease will cause them to wear quickly and the load bearing mechanism will then have to be replaced early.

Notes on the installation of rope winches:



The distance between the rope drum and the return sheave must be such that the maximum deviation angle for the type of rope used is not exceeded:

- Standard rope – Deviation angle < 3°
(Minimum distance = Drum width x 10)
- Special rope – Deviation angle < 1,5°
(Minimum distance = Drum width x 20)

- To prevent the wire rope from becoming slack when not under load it should always have an additional rope weight when used with lifting equipment.
- Guided loads must be monitored with a slack rope cut-out.
- To prevent the rope from becoming damaged, steel wire ropes must **never be guided**:
 - over edges,
 - over deflection radii which are too small or
 - over rope sheaves with grooves which are too small.
- High dynamic forces can cause ropes to suddenly break and the load to crash. It is therefore imperative that loads are never brought to a dead stop ("on block") and that loads are never allowed to drop into the rope.